Sub A 7

1. In a network system including a server system, a client system, and one or more other network devices, wherein the server system monitors the occurrence of events, sends notification data to the client system, when notification has been requested, after one of the monitored events occurs, and may have client data requiring transmission to the client system, a method for efficiently sending notification to the client system when the event has occurred, so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system, the method comprising:

an act of the server system determining that a notification is to be sent to the client system upon the occurrence of one of the monitored events;

an act of the server system sending notification data using a connectionless protocol to the client system, if one of the monitored events occurs;

an act of the server system attempting to receive contact from the client device using a connection-oriented protocol when the server system has client data to transmit to the client system; and

an act of the server system transmitting the client data to the client system using the connection-oriented protocol, after the server system receives contact using the connection-oriented protocol.

2. A method as recited in claim 1 wherein the server system determines that a notification is to be sent to the client system by receiving a message from the client system.

3. A method as recited in claim 1 wherein the server system monitors for the occurrence of events by executing separate modules to monitor individual events.

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Sub A' 7

4. A method as recited in claim 1 wherein in the connectionless protocol is User Datagram Protocol.

5. A method as recited in claim 1 wherein the notification data further comprises data that notifies the client system that the server has additional data associated with the occurrence of the event.

6. A method as recited in claim 1 wherein the connection-oriented protocol is Transmission Control Protocol.

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Seq A 7

7. In a network system including a server system, a client system, and one or more other network devices, wherein the server system monitors the occurrence of events, sends notification data to the client system, when notification has been requested, after one of the monitored events occurs, and may have client data requiring transmission to the client system, a method for efficiently sending notification to the client system when the event has occurred, so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system, the method comprising:

an act of the server system determining that a notification is to be sent to the client system upon the occurrence of one of the monitored events;

an act of the server system sending notification data using a connectionless protocol to the client system, if one of the monitored events occurs; and

a step for sending client data, after the notification data is sent, to the client system using a connection-oriented protocol.

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sub A' 7

8. A computer program product for implementing, in a network system including a server system, a client system, and one or more other network devices, wherein the server system monitors the occurrence of events, sends notification data to the client system, when notification has been requested, after one of the monitored events occurs, and may have client data requiring transmission to the client system, a method for efficiently sending notification to the client system when the event has occurred, so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system, the computer product comprising:

a computer-readable medium carrying computer-executable instructions that, when executed at the server system, cause the server system to perform the following:

an act of causing the server system to determine that a notification is to be sent to the client system upon the occurrence of one of the monitored events;

an act of causing the server system to send notification data using a connectionless protocol to the client system, if one of the monitored events occurs;

an act of causing the server system to attempt to receive contact from the client system using a connection-oriented protocol when the server system has client data to transmit to the client system; and

an act of causing the server system to transmit the client data to client system using the connection-oriented protocol, after the server system receives contact using the connection-oriented protocol.

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9. A computer program product for implementing, in a network system including a server system, a client system, and one or more other network devices, wherein the server system monitors the occurrence of events, sends notification data to the client system, when notification has been requested, after one of the monitored events occurs, and may have client data requiring transmission to the client system, a method for efficiently sending notification to the client system when the event has occurred, so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system, the computer product comprising:

a computer-readable medium carrying computer-executable instructions that, when executed at the server system, cause the server system to perform the following:

an act of causing the server system to determine that a notification is to be sent to the client system upon the occurrence of one of the monitored events;

an act of causing the server system to send notification data using a connectionless protocol to the client system, if one of the monitored events occurs; and

a step for causing the server system to send client data, after the notification data is sent, to the one of the plurality of client systems using a connection-oriented protocol.

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10. In a network system including a server system and a client system, wherein the server system monitors the occurrence of events and sends notification data to the client system when one of the monitored events occurs and wherein the client system attempts to establish a communication link to the server system using a connection-oriented protocol, after the client system receives event notification from the server system, when the server system needs to send additional data to the client system, a method for the server system to repeatedly attempt notification of the client system so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system, the method comprising:

an act of the server system determining that a notification is to be sent to the client system upon the occurrence of one of the monitored events;

an act of the server system sending notification data to the client system using a connectionless protocol to notify the client system of the occurrence of a monitored; and

an act of the server system resending the notification data using a connectionless protocol to the client system at time intervals which, at least for a time, increase after each failure to detect the establishment of a communication link using a connection-oriented protocol from the client system, wherein the resending occurs until a communication link using a connection-oriented protocol is established from the client system or until a timeout period has elapsed; and

an act of the server system sending additional data to the client system if a communication link using a connection-oriented protocol is established.

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Sub A7

11. A method as recited in claim 10 wherein the server system determines that notification is to be sent to the client system by receiving a message from the client system.

12. A method as recited in claim 10, wherein the server system monitors for the occurrence of events by executing separate modules to monitor individual events.

13. A method as recited in claim 10, wherein the connectionless protocol is User Datagram Protocol.

14. A method as recited in claim 10, wherein the time interval doubles after each successive failure to establish communication.

15. A method as recited in claim 10, wherein the connection-oriented protocol is Transmission Control Protocol.

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16. In a network system including a server system and a client system, wherein the server system monitors the occurrence of events and sends notification data to the client system when one of the monitored events occurs and wherein the client system establishes a communication link to the server system using a connection-oriented protocol, after the client system receives event notification from the server system, when the server system needs to send additional data to the client system, a method for the server system to repeatedly attempt notification of the client system so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system, the method comprising:

an act of the server system determining that a notification is to be sent the client system upon the occurrence of one of the monitored events;

a step for the server system resending notification data, using a connectionless protocol, to the client system at predefined time intervals which, at least for a time, increase, in an attempt to notify the client system a monitored event has occurred and a communications link can be received from the client system using a connection-oriented protocol; and

an act of the server system sending additional data to the client system if a communication link using a connection-oriented protocol is established.

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17. A computer program product for implementing, in a network system including a server system and a client system, wherein the server system monitors the occurrence of events and sends notification data to the client system when one of the monitored events occurs and wherein the client system establishes a communication link to the server system using a connection-oriented protocol, after the client system receives event notification from the server system, when the server system needs to send additional data to the client system, a method for the server system to repeatedly attempt notification of the client system so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system, the computer product comprising:

a computer-readable medium carrying computer-executable instructions that, when executed at the server system, cause the server system to perform the following:

an act of determining that a notification is to be sent to the client system upon the occurrence of one of the monitored events;

an act of sending notification data the client system using a connectionless protocol to notify the client system of the occurrence of a monitored event and;

an act of resending the notification data using a connectionless protocol to the client system at time intervals which, at least for a time, increase after each failure to detect the establishment of a communication link using a connection-oriented protocol from the client system, wherein the resending occurs until a communication link using a connection-

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oriented protocol is established from the client system or until a timeout period has elapsed; and

an act of sending additional data to the client system if a communication link using a connection-oriented protocol is established.

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18. A computer program product for implementing, in a network system including a server system and a client system, wherein the server system monitors the occurrence of events and sends notification data to the client system when one of the monitored events occurs and wherein the client system establishes a communication link to the server system using a connection-oriented protocol, after the client system receives event notification from the server system, when the server system needs to send additional data to the client system, a method for the server system to repeatedly attempt notification of the client system so as to preserve the processing capacity of the server system and the client system, and so as to preserve bandwidth on the network system, the computer product comprising:

a computer-readable medium carrying computer-executable instructions that, when executed at the server system, cause the server system to perform the following:

an act of determining that a notification is to be sent to the client system upon the occurrence of one of the monitored events;

a step for resending notification data to the client system at time intervals which, at least for a time, increase, using a connectionless protocol in an attempt to notify the client system a monitored event has occurred and a communications link can be received using a connection-oriented protocol; and

an act of sending additional data to the client system if a communication link using a connection-oriented protocol is established.

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19. In a network system including a server system and a plurality of client systems, wherein individual client systems from among the plurality client systems can request notification of the occurrence of one or more of a plurality of events and wherein the server system monitors to determine if any of a plurality of events has occurred and wherein the server system must send notification to individual client systems for every one of the plurality of events that occurs for which individual client systems have requested notification, a method for efficiently notifying one of the plurality of client systems of the occurrence of more than one event from among the plurality of events so as to preserve the processing capacity of the server system and the plurality of client systems, and so as to preserve bandwidth on the network system, the method comprising:

an act of the server system determining that a notification is to be sent to each individual client system from among the plurality of client systems that requested notification of the occurrence of one of the monitored events;

an act of the server system associating a separate storage location with each client and using the separate storage locations to store data on the occurrence of events which must be sent to each of the associated clients;

an act of server system appending to the separate storage locations the occurrence of successive events requested by individual client systems in order to save a record of the occurrence of the events until notification is ready to be sent to the individual client systems of the occurrence of all the saved events; and

an act of the server system using a connectionless protocol to send separately stored data to one of the plurality of client systems in order to attempt to simultaneously notify the one of the plurality of client systems of the occurrence of all the events for which the one of the plurality of clients has requested notification.

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20. A method as recited in claim 19 wherein the separate storage locations are included on one or more mass storages device associated with the server system.

21. A method as recited in claim 19 wherein the server system monitoring for the occurrence of events comprises executing separate modules to monitor individual events.

22. A method as recited in claim 19 wherein the connectionless protocol is User Datagram Protocol.

23. A method as recited in claim 22 wherein the simultaneous notification comprises receipt of one User Datagram Protocol packet.

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Sub A7

24. In a network system including a server system and a plurality of client systems, wherein individual client systems from among the plurality of client systems can request notification of the occurrence of one or more of a plurality of events and wherein the server system monitors to determine if any of a plurality of events has occurred and wherein the server system must send notification to individual client systems for every one of the plurality of events that occurs for which the individual client systems have requested notification, a method for efficiently notifying an individual client system of the occurrence of more than one event from among the plurality of events so as to preserve the processing capacity of the server system and the plurality of client systems, and so as to preserve bandwidth on the network system, the method comprising:

an act of the server system determining that a notification is to be sent to each individual client system from among the plurality of client systems that requested notification of the occurrence of one of the monitored events;

a step for the server system to separately store, for each of the plurality of client systems, data relating to the occurrence of the events for which each of the plurality of client systems requested notification;

an act of the server system using a connectionless protocol to send separately stored data to one of the plurality of client systems in order to attempt to simultaneously notify the one of the plurality of client systems of the occurrence of all the events for which the one of the plurality of clients has requested notification.

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25. A computer program product for implementing, in a network system including a server system and a plurality of client systems, wherein individual client systems from among the plurality client systems can request notification of the occurrence of one or more of a plurality of events and wherein the server system monitors to determine if any of a plurality of events has occurred and wherein the server system must send notification to individual client systems for every one of the plurality of events that occurs for which individual client systems have requested notification, a method for efficiently notifying one of the plurality of client systems of the occurrence of more than one event from among the plurality of events so as to preserve the processing capacity of the server system and the plurality of client systems, and so as to preserve bandwidth on the network system, the computer product comprising:

a computer-readable medium carrying computer-readable instructions, that when executed at the server system, cause the server system to perform the following:

an act of determining that a notification is to be sent to each individual client system from among the plurality of client systems that requested notification of the occurrence of one of the monitored events;

an act of associating a separate storage location with each client system, the server system using the separate storage locations to store data on the occurrence of events which must be sent to each of the client systems;

an act of appending to the separate storage locations the occurrence of successive events requested by individual client systems in order to save a record of the occurrence of the events until the server system is ready to

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send notification to the individual client systems of the occurrence of all the saved events; and

an act of using a connectionless protocol to send the contents of one of the separate storage locations to the client system associated with the one of the separate storage locations in order to attempt to simultaneously notify the associated individual client system of the occurrence of all the events stored in the separate storage location.

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26. A computer program product for implementing, in a network system including a server system and a plurality of client systems, wherein individual client systems from among the plurality client systems can request notification of the occurrence of one or more of a plurality of events and wherein the server system monitors to determine if any of a plurality of events has occurred and wherein the server system must send notification to individual client systems for every one of the plurality of events that occurs for which individual client systems have requested notification, a method for efficiently notifying one of the plurality of client systems of the occurrence of more than one event from among the plurality of events so as to preserve the processing capacity of the server system and the plurality of client systems, and so as to preserve bandwidth on the network system, the computer product comprising:

a computer-readable medium carrying computer-readable instructions, that when executed at the server system, cause the server system to perform the following:

an act of determining that a notification is to be sent to each individual client system from among the plurality of client systems that requested notification of the occurrence of one of the monitored events;

a step for separately storing for each of the plurality of client systems data relating to the occurrence of the events for which each of the plurality of client systems requested notification;

an act of using a connectionless protocol to send separately stored data to one of the plurality of client systems in order to attempt to simultaneously notify the one of the plurality of client systems of the occurrence of all the events for which the one of the plurality of clients has

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requested notification.

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Sub A' 7

27. In a network system including a server system and a client system, wherein the server system monitors the occurrence of events, sends notification to the client system when one of the monitored events occurs, and may have client data requiring transmission to the client system, a method for efficiently notifying applications associated with the client system when an event has occurred so as to preserve the processing capacity of server system and the client system, and so as to preserve bandwidth on the network system, the method comprising:

an act of the client system determining that one or more of a plurality of applications associated with the client system requesting notification of an occurrence of an event;

an act of the client system receiving one notification from the server system using a connectionless protocol notifying the client system that the event the one or more of the of the plurality of applications requested notification of occurred;

an act of the client system transmitting the received notification to the one ore more of the plurality of applications; and

an act of the client system attempting to create a connection using a connection-oriented protocol and receive client data associated with the one or more of the plurality of applications over the connection.

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28. A method as recited in claim 27 wherein the server system monitoring for the occurrence of events comprises executing separate modules to monitor individual events.

29. A method as recited in claim 27 wherein the act of the client system determining that one or more of a plurality of applications associated with the client system requested notification of the event comprises a module to detect the one or more of a plurality of applications.

30. A method as recited in claim 29 wherein the act of transmitting the received notification to one or more of the plurality of applications comprises the module transmitting the received notification.

31. A method as recited in claim 27 wherein the connectionless protocol is the User Datagram Protocol.

32. A method as recited in claim 27 wherein the connection oriented protocol is Transmission Control Protocol.

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33. In a network system including a server system and a client system, wherein the server system monitors the occurrence of events, sends notification to the client system when one of the monitored events occurs, and may have client data requiring transmission to the client system, a method for efficiently notifying applications associated with the client system when an event has occurred so as to preserve the processing capacity of server system and the client system, and so as to preserve bandwidth on the network system, the method comprising:

an act of the client system determining that one or more of a plurality of applications associated with the client system requesting notification of an occurrence of an event;

a step for the client system to distribute a received notification to the one or more of the plurality of applications, the notification indicating that the event occurred; and

an act of the client system attempting to create a connection using a connection-oriented protocol and receive client data associated with the one or more of the plurality of applications over the connection.

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34. A computer product claim for implementing, in a network system including a server system and a client system, wherein the server system monitors the occurrence of events, sends notification to the client system when one of the monitored events occurs, and may have client data requiring transmission to the client system, a method for efficiently notifying applications associated with the client system when an event has occurred so as to preserve the processing capacity of server system and the client system, and so as to preserve bandwidth on the network system, the computer product comprising:

a computer-readable medium carry computer executable-instructions that, when executed at the client computer, cause the client computer to perform the following:

an act of determining that one or more of a plurality of applications associated with the client system has requested notification of the occurrence of an event;

an act of receiving one notification from the server system using a connectionless protocol notifying the client system that the event the one or more of the of the plurality of applications requested notification of occurred;

an act of transmitting the received notification to the one or more of the plurality of applications; and

an act of attempting to create a connection using a connection-oriented protocol and receive client data associated with the one or more of the plurality of applications over the connection.

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35. A computer product claim for implementing, in a network system including a server system and a client system, wherein the server system monitors the occurrence of events, sends notification to the client system when one of the monitored events occurs, and may have client data requiring transmission to the client system, a method for efficiently notifying applications associated with the client system when an event has occurred so as to preserve the processing capacity of server system and the client system, and so as to preserve bandwidth on the network system, the computer product comprising:

a computer-readable medium carry computer executable-instructions that, when executed at the client computer, cause the client computer to perform the following:

an act of determining that one or more of a plurality of applications associated with the client system has requested notification of the occurrence of an event;

a step for distributing a received notification to the one or more of the plurality of applications, the notification indicating that the event occurred; and

an act of attempting to create a connection using a connection-oriented protocol and receive client data associated with the one or more of the plurality of applications over the connection.

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